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ALPINE PLANTS AT HOME

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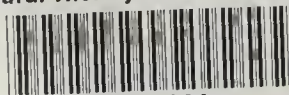
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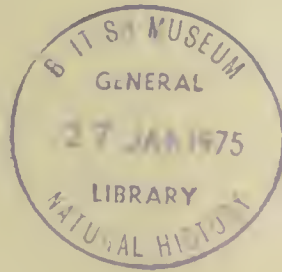
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*A*LL the photographs in this little book were taken in the Alps. While those in the First Series illustrate the flora of June the present is representative of plants flowering somewhat later, for nearly all the photographs in this series were taken in July in the immediate neighbourhood of Saas Grund. Otherwise the remarks in the preface of the First Series apply to this volume also.



HEPATICA

Flower blue, sometimes pink
or white)

HÉPATIQUE, HERBE DU FOIE,
ou HERBE DE LA TRINITÉ
(Fleur bleue, parfois rose
ou blanche)

ECHTES LEBERBLÜMCHEN
(Blau, blau- bisweilen rosa oder weiss)



ALPINE COLUMBINE
(Flower blue)

ALPEN-ÄKELEI
(Blüte blau)

ANCOLIE DES ALPES
(Fleur bleue)



COMMON MONK'S-HOOD
(Flower blue)

ACONIT NAPEL, CASQUE DE JUPITER
OU CHAR DE VÉNUS
(Fleur bleue)

ECHTER STURMHUT
(Blüte blau)



HAIKY ROCK-CRESS
(Flower white)

ÉCITE GÄNSEKRESSE
(Blüte weiss)

ARABETTE VÉLUE
(Fleur blanche)



TOOTH-WORT
(Flower pink or violet)

DENFAIRE DIGITÉE
(Fleur rose ou violette)

FINGER-ZAHNWURZ
(Blüte rosa oder violett)



TABOURET DES MONTAGNES
(Fleur blanche)

BERG-PFENNIGGRAUT
(Blüte weiss)

MOUNTAIN PENNY-CRESS
(Flower white)



COMMON ALPINE CRESS
(Flower white)

ALPEN-GEMSSCHÖTCHEN
(Blüte weiss)

HUTCHINSIE DES ALPES
(Fleur blanche)



GRASS OF PARNASSUS
(Flower white)

PARNASSIE DES MARAIS
(Fleur blanche)

SUMPF-HERZBLATT
(Blüte weiss)



MOUNTAIN MILKWORT
 (Flower yellowish-white or
 yellowish-purple)

LAITIER BOIS
 (Fleur blanc jaunâtre ou
 pourpre jaunâtre)

Polygala chamaebuxus



CREeping GYPSOPHILA
(Flower white within, pink without) (Fleur blanche en dedans, rose à l'extérieur)
KRIECHENDES GIPSKRAUT
(Blüte innen weiss, aussen rosa)



NOTTINGHAM CATCHFLY SILÈNE PENCHÉ
(Flower white or greenish-white) (Fleur blanche ou blanc verdâtre)
NICKENDES LEIMKRAUT
(Blüte weiss oder grünweiss)

ALSINE CHERLERI, FENZL.
[*CHERLERIA SEDOIDES*, L.]

1)



CHERLERIE FAUX ORNIN
(Fleur verte)

KELCH-MERICH
(Blüte grün)

SIEDUN-LIKE CHERLERIA
(Flower green)



FIELD MOUSE-EAR CHICKWEED
(Flower white)

CÉRAISTE DES CHAMPS
(Fleur blanche)

ACKER-HORNKRAUT
(Blüte weiss)



MOUNTAIN TREFOIL
(Flower white or pink)

TRÈFLE DE MONTAGNE
(Fleur blanche ou rose)

BERG-KLEE
(Blüte weiss oder rosa)

TRIFOLIUM BADIUM, SCHREB.



TRÈFLE BRUN
(Fleur jaune)

LEDER-KLEE
(Blüte gelb)

BROWN TREFOIL
(Flower yellow)



ALPINE ROSE
(Flower red)

ÉGLANTIER DES ALPES
(Fleur rouge)

BERG-ROSE
(Blüte rot)



FLEISCHER'S WILLOW-HERB
(Flower brownish-pink)

ÉPILOBE DE FLEISCHER
(Fleur rose brunâtre)

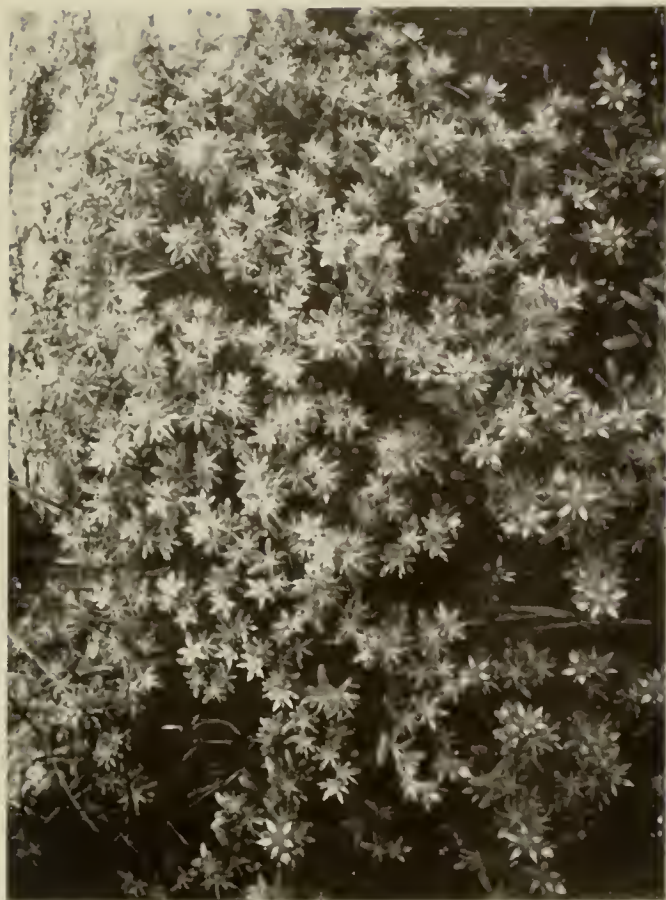
BRAUNES WEIDENRÜSCHEN
(Blüte bräunlich rosa)



PERENNIAL KNAWEI.
(Flower greenish-white)

DAUER-KNÄUEL.
(Blüte grünweiss)

GNAVELLE VIVACE
(Fleur blanc verdâtre)



ANNUAL STONECROP

SOMMER-FETTHENE

ORPIN ANNUEL



THICK-LEAVED STONECROP
(Flower pinkish-white)

ORPIN À FEUILLES ÉPAISSES
(Fleur blanc rose)

BUCKEL-FETTHENNE
(Blüte rosaweiss)



MOSS-LIKE SAXIFRAGE
(Flower yellowish-white)

ÜPPIGER STEINBRECH
(Blüte gelblich-weiß)

SAXIFRAGE MOUSSE
(Fl.)



WEDGE-LEAVED SAXIFRAGE
(Flower white)

SAXIFRAGE À FEUILLES EN COIN
(Fleur blanche)

KEIL-STEINBRUCH
(Blüte weiss)



ROUND-LEAVED SAXIFRAGE
(Flower white)

SAXIFRAGE À FEUILLES RONDÉS
(Fleur blanche)

NIEREN-STEINBRECH
(Blüte weiss)



ALPINE ASTER

(Flower purple, centre yellow)

ASTER DES ALPES

(Fleur pourpre, centre jaune)

ALPEN-ASTER

(Blüte purpurn, Mitte gelb)



ALPINE DAISY
(Flower white, centre yellow)

BELLIDIASTRUM DE MICHELI
(Fleur blanche, centre jaune)

ECHTES ALPENMASSLIEB
(Blüte weiss, Mitte gelb)



DWARF CUDWEED
(Flower brown)

GNAPHALE SAINE
(Fleur brune)

ZWERG-RUHRKRAUT
(Blüte braun)



NORTHERN CUDWEED
(Flower brownish-white)

GNAPHALE DU NORD
(Fleur blanc brunâtre)

NORDISCHES RUHRKRAUT
(Blüte braunweiss)



PIED DE LION
(Fleur blanche)

ÉCHITES ÉDELWEISS
(Blüte weiss)

ÉDELWEISS
(Flower white)



CARPATHIAN CUDWEED
(Flower brown)

PIED-DE-CHAT CARPATHE
(Fleur brune)

BRAUNES KATZENPFÖTCHEN
(Blüte braun)



ALPINE OX-EYE

CHRYSANTHEME DES ALPES

(Flower white, sometimes purplish, (Fleur blanche, parfois purpurine,
centre yellow)

centre jaune)

ALPEN-KÄSEMILCH

(Blüte weiss, bisweilen purpurlich, Mitte gelb)



SINGLE-FLOWERED GROUNDSEL
(Flower yellow)

SENÉCON A FLEURS SINGLES
(Fleur jaune)



PERENNIAL LETTUCE
(Flower blue)

LAITUE VIVACE
(Fleur bleue)



GOLDEN HAWK'S-BEARD
(Flower orange-yellow)

GOLD-GRUNDFESTE
(Blüte orange gelb)

CRÉPIDE DORÉE
(Fleur jaune orange)



HEMISPHERICAL RAMPION
(Flower blue)

RAIPONCE HÉMISPHERIQUE
(Fleur bleue)

GRAS-TEUFFTSKRALLE



BEARDED BELL-FLOWER
(Flower pale blue)

CAMPANULE BARBUE
(Fleur bleu pâle)

BÄRTIGE GLOCKENBLUME
(Blüte blassblau)



FISSURED BELL-FLOWER
(Flower blue)

CAMPANULE PERFORÉE
(Fleur bleue)

AUSGESCHNITTENE GLOCKENBLUME
(Blüte blau)



DWARF BELL-FLOWER
(Flower blue)

CAMPANULE MIGNONNE
(Fleur bleue)

NIEDLICHE GLOCKENBLUME
(Blüte blau)



MOUNT CENIS BELL-FLOWER
(Flower blue)

CAMPANULE DU MONT-CENIS
(Fleur bleue)

CENIS-GLOCKENBLUME
(Blüte blau)



SPIKED BELL-FLOWER
(Flower yellow)

CAMPANULE À FLEURS EN THYRSE
(Fleur jaune)

BORSTEN-GLOCKENBLUME
(Blüte gelb)



AZALÉE CONCHÉE
(Fleur rose)

ZWERG-FELSENSUCHEN
(Blüte rosa)

CREeping AZALEA
(flower pink)



PURPLE GENTIAN GENTIANE POURPRÉE
(Flower purplish, sometimes yellow) (Fleur purpurine, parfois jaune)
PURPUR-ENZIAN
(Blüte purpurlich, bisweilen gelb)



BLADDER GENTIAN
(Flower blue)

SCHLAUCH-ENZIAN
(Blüte blau)

GENTIANE RUFELLE
(Fleur bleue)



DWARF FORGET-ME-NOT
(Flower blue)

MVOSOTIS NAIN
(Fleur bleue)

KLEINER HIMMELSHFROLD
(Blüte blau)



GREAT YELLOW-RATTLE
(Flower yellow)

TARTARIE GRANDE
(Fleur jaune)

GROSSE WIESEN-KLAPPER
(Blüte gelb)



ALPINE THYME
(Flower medicinal)

ALPEN-WÜRZE
(Blüte curaculisch)

CALAMENT DES ALPES
(Flower medicinal)



LARGE-FLOWERED SELF-HEAD.
(Flower violet-blue)

BRUNELLA GRANDE
(Fleur bleu violet)

GROSSE BRUNELLE
(Blüte violettblau)



MOUNTAIN GEMANDER
(Flower yellowish-white)

GERMANDRÉE DES MONTAGNES
(Fleur blanc jaunâtre)

(Blüte gelbweiss)



GLACIER ANDROSACE
(Flower pink or whitish)

ANDROSACE DES GLACIERS
(Fleur rose ou blanchâtre)

GLETSCHER-MANNSSCHILD
(Blüte rosa oder weisslich)



ALPINE BASTARD TOAD-FLAX
(Flower white)

FAUSSE LINAIRE DES ALPES
(Fleur blanche)

GEBIRGS-VERMEINKRAUT



SMALLER MARSH ORCHIS
(Flower purple)

SUMPF-AFFENKRAUT
(Blüte purpurn)

ORCHIS DES PRÉS
(Fleur pourpre)



FRAGRANT ORCHIS
(Flower pink)

GYMNADÉNIA A LONG ÉPERON
(Fleur rose)

GROSSE HÖSWURZ
(Blüte rosa)



BUTTERFLY ORCHIS
(Flower whitish)

ORCHIS À DEUX FEUILLES
(Fleur blanchâtre)

KLEINE STENDELWURZ
(Blüte weisslich)



LADY'S SLIPPER
(Flower brown and yellow)

SABOT DE VÉNUS
(Fleur brune et jaune)

DEUTSCHER FRAUENSCHUH
(Blüte braun und gelb)



TURK'S-CAP LILY
(Flower violet-pink)

TÜRKENBUND-LILIE
(Blüte violett rosa)

LIS MARTAGON
(Fleur rose violet)



AUTUMN CROCUS
(Flower pink)

HERBST-ZEITLOSE
(Blüte rosa)

COLCHIQUE D'AUTOMNE
(Fleur rose)

Some Notes on the Plants

OF WHICH

PHOTOGRAPHS APPEAR IN

THE PRECEDING PAGES . .

BY

SOMERVILLE HASTINGS.

The Fetid Meadow-Rue (Frontispiece) is a fair-sized plant, pretty common in rocky places, and not exclusively Alpine. It is recognised by its relatively large flowers and finely divided leaves, which are covered with soft glandular hairs. The Alpine Meadow-Rue (*Thalictrum Alpinum*) is a much smaller plant, with smaller flowers and much less finely divided leaves.

The Hepatica (Page 6), with its pretty little sky-blue flowers, is frequently cultivated in gardens. It usually flowers in spring, but the plant here shown had been brought down by an avalanche and was photographed late in June. Its leaves are smooth and leathery, and divided into three segments.

The Glacier Crowfoot (Page 7) is a typical Alpine plant, most abundant on rocky debris close to the snow line. It is said to have been found at higher altitudes than any other flowering plant, and has been picked near the summits of some of the highest peaks in Switzerland. The flowers are tinged with pink externally, and the calyx, which is covered with reddish brown hairs, persists after the flower itself has faded. These characters, with the finely divided leaves and leafless flower stalks, distinguish this plant from all the other crowfoots. The Alpine Crowfoot (page 10, First Series) at first sight resembles it closely.

The Alpine Columbine (Page 8) is one of the most graceful of Alpine plants. It is widely distributed, but nowhere common. Its flowers are blue, and larger than those of the Common Columbine, which is as abundant in the Alps as in the plains.

The Common Monk's-Hood (Page 9) is a tall, conspicuous plant, with dark blue flowers. It is fairly common in the Alps, especially in the vicinity of cow-houses and dairies. The flowers are closely packed together on the stem, which is usually unbranched, and the leaves are dark green, shiny, and finely divided. It is a poisonous plant, and depends entirely on humble bees for the conveyance of pollen and consequent formation of seeds.

The Hairy Rock-Cress (Page 10) is a common Alpine weed, bearing numerous white flowers on a long stalk. The shape of its leaves is perhaps the most distinctive thing about it.

The Mignonette-leaved Bitter-Cress (Page 11) is another inconspicuous little plant with white flowers, but this one is rather rare.

The Tooth-Wort (Page 12) is a tall, almost shrubby plant, fairly common in mountain woods. Remembering the rose-lilac colour of the flowers, and that all the leaves are divided, it should be easily recognised.

The Mountain Penny-Cress (Page 13), like the three preceding species, is a plant with cruciform flowers, that is, flowers formed by two pairs of opposite petals. The plant has white flowers, and grows in rocky places, but is rather rare.

The Common Alpine Cress (Page 14), another cruciferous plant with white flowers, should be recognised from the photo. *Hutchinsia brevecaulis* is very like it, but is a smaller and more compact plant. Both are common in the Alps.

The Grass of Parnassus (Page 15) is a lovely little plant. It grows in moist places not only in the Alps but also nearly all over Europe. The flower has a large fan-shaped glandular scale in front of each petal. To the middle of the flower-stalk is attached a single heart-shaped leaf. There are also similar leaves at the base of the stem, but these have long stalks. The petals are white and veined like ivory.

The Mountain Milkwort (Page 16) is a creeping shrub common in most parts of Switzerland. Its leaves are polished, leathery, and evergreen. The central part of the flower is yellow and the two wings are usually white, but when the plant is grown on calcareous slate, they acquire a reddish-purple colour. The influence of the soil on the colour of the flowers is very striking in this plant.

The photograph on Page 17 gives a very poor idea of the general habit of the Creeping Gypsophila. The plant was growing from a cleft among rocks, and therefore its long flower stalks and narrow leaves are very imperfectly seen. The Gypsophila is a common and graceful plant. The flowers are white or pale pink.

The Nottingham Catchfly (Page 18) is common in Switzerland, but is not exclusively Alpine. The flowers, which are drooping, when they first open, have very long styles. The petals are greenish white, and are divided nearly to their bases.

The Sedum-like Chelaria (Page 19) is a tiny plant with minute green flowers, very common among rocks in the higher Alpine regions. It closely resembles a moss, especially when not flowering, but is really a Cushion plant, and allied to the pinks. Some account of these Cushion plants, so characteristic of the higher Alps, will be found on page 67 of the First Series.

The Field Mouse-Ear Chickweed, with white flowers (Page 20) is met with in lowland as well as Alpine regions. Its stem is hairy and its leaves smooth.

The Mountain Trefoil (Page 21) is a stiff-looking plant, with pale pink flowers. It is common in mountain pastures. The leaflets are hairy underneath, and the flower stalk becomes deflected when the flowers fade.

The Brown Trefoil (Page 22) is common and distinctive. The globular flower beads are at first of a golden yellow colour, and are held erect on the long flower stalks. But later on as they fade, the flower heads hang down and become a glossy brown. The corolla, now brown and dry, remains in this way attached to the seeds, and is of considerable importance in assisting their distribution by the wind. The leaves are long-stalked, and the three leaflets have finely serrated margins.

The Alpine Rose (*Rosa Alpina*, Page 23) must not be confused with the Alpenrose which is seen on pages 38 and 39 of the First Series. The names are liable to lead to confusion. The Alpine Rose is a shrub bearing rose-red flowers, with a faint fragrant scent. The leaves have 7 to 11 leaflets and the flowering branches are entirely without spines. Indeed it is unusual to find spines on any but the very youngest shoots. There are several sub-species.

Fleischer's Willow-Herb is seen on Page 24. It grows in dried-up torrent beds in the high Alps but is rather local. Very closely resembling it is a commoner species *Epilobium rosmarinifolium*. The latter is usually a bigger plant with more closely packed leaves and its style is about as long as the stamens, whereas the style of Fleischer's Willow Herb is much shorter.

The Perennial Knawel (Page 25) is fairly common in dry places but is not exclusively Alpine. The broad white margin of the green calyx is characteristic.

Two species of Stonecrop are photographed. The Annual Stonecrop (Page 26) is a fairly common plant with yellow flowers. The whole plant is without hairs and the leaves are fleshy and cylindrical. The individual flowers have very short stalks. The Thick-leaved Stonecrop (Page 27) is very common. The thick succulent leaves are in pairs opposite one another and are often spotted with red, and the flowers are white and tend to hang down.

Three more species of Saxifrage are illustrated in this volume. They should be carefully compared with those on pages 24 to 28 of the First Series. The Moss-like Saxifrage (Page 28) is really a Cushion plant growing in moss-like tufts in the fissures of rocks in high Alpine regions. The Rough Saxifrage (Page 27—First Series) very closely resembles it, for both have yellowish white flowers. Apart from technical details the smaller and more closely packed leaves of the Moss-like Saxifrage are perhaps the best guides to its identification. The general habits of the two plants will be easily seen by a comparison of the two photos.

The Wedge-leaved Saxifrage (Page 29) is rather rare. It grows in moist places on the Alps. The wedge-shaped leaves are smooth and leathery, and have a thickened margin. The flower stem is long and branched, and the white flowers have almost invariably a yellow spot in the centre of each petal.

The Round-leaved Saxifrage (Page 30) will be readily identified if its long-stalked leaves and white petals, which are spotted with red and yellow, be remembered. It is common in damp shady places.

The pretty little Alpine Aster is well illustrated on page 31. The flowers are violet-purple with yellow centres, and each plant bears but a single flower head on a long stalk. Two species of Fleabane (*Erigeron*) resemble the Alpine Aster rather closely, but no mistake will arise if it be remembered that the purple ray florets are arranged in several rows in *Erigeron*, but in a single row in *Aster*.

The Alpine Daisy (Page 32) is the Alpine representative of the Common Daisy (*Bellis perennis*) which it closely resembles. But the flowers, though similar in colour, are larger, and the leaves are more elongated and have coarser notches along the edges. It is common in moist rocky places and mountain pastures.

The Dwarf Cudweed (Page 33) is a stumpy little plant, bearing usually but a single flower head at the top of a short stem. The plant grows in tufts, and comes up directly the snow melts. It is much appreciated by sheep.

The Northern Cudweed (Page 34), like the Dwarf Cudweed, has its leaves covered by a whitish felt. It is closely related to the Wood Cudweed (*Gnaphalium silvaticum*), but has broader leaves, with three veins. In the Wood Cudweed the leaves are practically all of the same length, but in the Northern Cudweed the leaves situated half-way up the stem are longer than those above and below.

The Edelweiss (Page 35) is probably the best known of Alpine plants. It is certainly weird and beautiful. The flower heads are surrounded by long bracts covered by white felt-like hairs which give rise to the characteristic appearance of the plant. While it is found right up to the snow line, the Edelweiss seems to prefer rich Alpine meadows. In Northern Switzerland it is rarely met with, but is sometimes cultivated by the guides and then transplanted to the mountains to be re-discovered a few weeks later when the guide has a party with him. South of the Rhone Valley it is much more common and can be picked in armfuls in some of the Alpine pastures. Woolly plants like the Edelweiss are much more characteristic of dry steppes than of high mountains, and the Edelweiss itself is common in the steppes of Siberia, but absent in Arctic regions.

The Carpathian Cudweed (Page 36) is closely related to the Catsfoot or Mountain Everlasting photographed on page 31 of the First Series, and closely resembles it. But the Carpathian Cudweed has brown, not pink or white, flower heads, and never sends out runners as the Mountain Everlasting does.

The Alpine Ox-Eye (Page 37) is a kind of dwarfed Alpine form of the common Ox-eye Daisy. The flower-head is white, with a concave yellow centre, and the short flower-stalk, which is unbranched, is usually devoid of leaves. The leaves at the base of the stem are finely divided. The plant is common in the high Alps and widely distributed. It is interesting to note how many lowland plants have

corresponding Alpine representatives which resemble them closely, but are usually quite distinct species, and more than mere dwarfed varieties. The conclusion is forced upon us that the Alpine form, though now quite distinct, was originally the result of a change of environment acting upon the lowland species. Some, however, would reverse the process, and regard the Alpine form as really the more primitive.

The Single-flowered Groundsel (Page 38) is rare except in some localities south of the Rhone Valley, where it is found in great abundance close to the snow line. The yellow flower-head is carried on a thick unbranched stem, and the divided leaves are covered by a fine white felt.

The Mountain Cornflower (Page 39) is often cultivated in gardens, and ought to be easily recognised from the photo. The flower is blue, and the bracts below the flower-head have a narrow black fringe. It is common in mountain woods and shady places.

The Perennial Lettuce (Page 40) is distinguished by its large blue flower-heads. The specimen here photographed was found at a high altitude, and is consequently rather dwarfed. The plant grows in dry rocky places, but is rather local.

The Golden Hawk's-Beard (Page 41) will be readily recognised by the deep orange-yellow colour of its flower heads. The stem is long and leafless and covered by dark hairs, especially above. It is common in Alpine meadows and pastures, and makes excellent fodder.

Two Rampions are illustrated in this volume. Both have blue flowers, and are therefore quite different from the Spiked Rampion illustrated on page 35 of the First Series. The Hemispherical Rampion (Page 42), an insignificant little plant, is a common constituent of the turf of Alpine pastures. Its leaves are grass-like, and there are 8-12 flowers to each flower head. The Few-flowered Rampion (*Phyteuma pauciflorum*) has fewer flowers (5-7) to each flower head, and broader, not grass-like, leaves. *Phyteuma betonicaefolium* (Page 43) is one of the tall Blue Rampions of Alpine meadows. Only the flower heads are shown in the photo., but the plant cannot be recognised by these alone. The leaves are lance shaped, with long stalks, and are usually hairy.

Switzerland is very rich in Bell-Flowers. Five species are illustrated in this volume, and a sixth will be found on page 38 of the First Series. The Bearded Bell-flower (Page 44) is covered all over by woolly hairs, and these are especially long around the mouth of the bell. The plant is very common in Alpine pastures and the flowers are pale blue. The Fissured Bell-Flower (Page 45) is a beautiful little plant. Its characteristic feature is the deep clefts each of which opens out below into a rounded sinus, between the lobes of the corolla. The calyx teeth are small and turned back, and most of the leaves are narrow. It is rather local, but like so many other Alpine plants, when found at all it is generally found in great abundance. The Dwarf Bell-Flower (Page 46) is very common. It forms large clusters of blossoms in rocky places. There are numerous toothed leaves at the bases of the flower-stalks. The bells are short, with wide open mouths and

the plant is devoid of hairs. Many of the bell-flowers are much alike, and very difficult to distinguish from one another. From Scheuchzer's Bell-Flower (Page 36 First Series), the Dwarf Bell-Flower is recognised by its smaller flowers and the more numerous leaves at the bases of the flower stalks. The Mount Cenis Bell-Flower (Page 47) is a delightful little plant, with a creeping stem, bearing two or three flowers only. The flowers are deep blue and the corolla is divided half way down. The photo gives a good idea of the habit of the plant which will be readily recognised by it. It grows high up in rocky places, and is not very common. The Spiked Bell-Flower (Page 48) cannot possibly be mistaken for any other plant. It is the only bell-flower with greenish-yellow flowers. Indeed the only mistake possible is that it may not be recognised as a bell-flower at all. It is a biennial plant, and the first year consists of a tuft of closely-set leaves only. The second year a stout stem develops, covered with stiff hairs, and bearing between them the closely-packed yellowish-green flowers. It is widely distributed on grassy slopes fairly high up.

The Creeping Azalea (Page 49) is a pretty little creeping shrub with pink flowers. The intertwined branches creep over the surface of rocks and boulders at high altitudes. The leaves are thick, evergreen, and rolled back at their margins.

The Purple Gentian (Page 50) will be readily recognised from the photo. No other Alpine Gentian has reddish-purple flowers and a calyx split on one side almost to its base. The flowers rarely open more than is shown in the photo. The root of the Purple Gentian, like that of the Yellow Gentian (page 40, First Series), is used in medicine. It is interesting to note that by means of cross-fertilisation hybrids occur between the three large Gentians, the Yellow, the Purple, and the Spotted. These are likely to give rise to confusion in identification, and were at first regarded as distinct species. The Bladder Gentian (Page 51), a little blue flowered plant, is not very common. Its much inflated calyx, with well-marked wings, is its distinctive feature. Closely resembling it is the Snow Gentian (*Gentiana nivalis*). But in this plant the calyx is less inflated and without wings. The shape of the leaves, as well as the inflated calyx, at once distinguish the Bladder Gentian from the Short-leaved species photographed on page 42 of the First Series.

The Dwarf Forget-me-not (Page 52) is a typical snow plant. It is only found in crevices of the rocks close to the snow line, and is fairly common there. Its flowers are very like those of the Common Forget-me-not, and are of the richest, purest, blue. From the other Forget-me-nots, such as the Alpine Forget-me-not (page 43, First Series), it is recognised by its smaller more closely packed leaves, and by the fact that only two or three flowers are borne on each stalk. The plant is much smaller also, and inclines to be creeping.

The Great Yellow-Rattle (Page 53) is fairly abundant in Alpine meadows. The flower is yellow with the exception of the teeth of the upper lip of the corolla which are usually violet. From the Lesser Yellow Rattle (*Alectorolophus minor*) which is commoner and flowers earlier, it is distinguished by its larger flowers and the longer teeth on the upper lip of the corolla.

The Alpine Thyme (Page 54) is very abundant on dry Alpine slopes in most parts of Switzerland. The corolla is violet-purple with a white throat, and the downy calyx is open while the flower is in the bud. The Basil Thyme (*Calamintha Scinos*) is not unlike the above, but the flowers are smaller and usually spotted, and the calyx is closed above till the corolla begins to expand.

The Large-flowered Self-heal (Page 55) though common in Switzerland is not exclusively Alpine. Its flowers are of a violet-purple colour. From the Common Self-heal (*Brunella vulgaris*), (see *Wild Flowers at Home, First Series*, Pages 56 and 57). it is distinguished by its larger flowers and by the longer intervals between the pairs of opposite leaves on the stem.

The Mountain Germander (Page 56), a characteristic looking plant, is easily recognised when known, but might not be spotted as a Germander the first time it is seen. It is fairly abundant, creeping over the stones on dry mountain slopes. The flowers are yellowish-white and the leaves downy underneath. The plant has a faint aromatic smell.

The Glacier Androsace (Page 57) is a delicate little cushion-plant found only in the higher Alpine regions. The flowers are pink and the leaves look velvety from their covering of short hairs. The flowers are borne on a short flower stalk. The Swiss Androsace (*Androsace helvetica*) has white flowers with a yellow centre and forms denser cushions. The Imbricated Androsace (*Androsace imbricata*) has white flowers with a red centre and practically no flower stalk.

The Alpine Bastard Toad-Flax (Page 58) is a very small trailing plant, common in Alpine pastures. It is not easily distinguished from several other species of Bastard Toad-Flax which are found in Switzerland and very closely resemble it.

Switzerland is very rich in Orchids. Four are illustrated in this volume and a fifth will be seen on page 60 of the First Series. The photograph on page 59 is of the Smaller Marsh Orchis, but the specimen was growing high up on the mountain side, and is not very typical. The flowers are purple, the spur short, and the tubers undivided. The Fragrant Orchis (Page 60) is common in most parts of Europe as well as in the Alps. The scent is strong, but may not be considered pleasing by everyone. The flowers are reddish-pink, and the spur long. A very similar species (*Gymnadenia odoratissima*), which is not so common, has paler flowers and narrower leaves and a much shorter spur. The Butterfly Orchis (Page 61) is one of the loveliest of flowers. The tall flower stem has a pair of large leaves opposite to one another at its base, and a spike of large white flowers above. The plant is common in woods, and is found all over Europe. It may be gathered in large bunches in many Alpine meadows. The flower is very graceful, and towards evening gives out the sweetest of perfumes. Like so many other light-coloured flowers, the Butterfly Orchis is fertilised exclusively by moths, and the sweet scent is doubtless to attract these. Only such insects as moths, with long tongues, could reach the honey that is secreted right at the bottom of the long spur. A very closely allied species, *Platanthera montana*, has slightly larger and more

greenish flowers and a clubbed spur. The wonderful Lady's Slipper (Page 62) is found in mountain woods, but is rare. The flowers are purple brown, with a bright yellow lip. They are of large size, and will be easily recognised. (For other and different photographs of these last two plants see *Wild Flowers at Home, Second Series*, Page 61, and *Third Series*, Pages 58 and 59)

The Turk's-Cap Lily (Page 63) has large pink drooping flowers with petals rolled back like a turban. Its leaves are in whorls and it is common in mountain woods. *Lilium Carniolicum*, which is rare, has fewer flowers which are bright red or occasionally yellow and alternate leaves.

The flowers of the Autumn Crocus (Page 64) come up in autumn after the hay is cut. The leaves appear and the seeds mature the following spring. The Spring Crocus (page 61, First Series) has ensheathing leaves around the flower, and the Alpine Autumn Crocus (*Colchicum alpinum*) has narrower petals. The Autumn Crocus is used in medicine especially for gout.

Lantern Slides of the Photos. in this book can be obtained from Messrs. Newton, Opticians, 3 Fleet Street, London, E.C.

